SOLVAY
SODA ASH JOINT VENTURE

September 5, 1997

Dan Olson
WDEQ-Air Quality Division
122 W. 25th Street
Cheyenne, WY 82002

Dear Dan:

The purpose of this letter is to report the results of the Calciner #3 (AQD #48) capacity test, and request an extension to operate at expanded rates.

A letter dated April 30, 1997 from WDEQ-AQD gave permission to Solvay Minerals to conduct a capacity test on Calciner #3. Stack testing was conducted during May at 181 TPH, 198 TPH, and one run at 216 TPH production feed rates. The Reference Test Methods employed were 5/202 for particulate, 18 for HAPs, 25A (minus methane and ethane) for VOCs, 7 for NO_X and 10 for CO. The results are detailed in the enclosed report; "Report on Emissions Testing of AQD No. 48 During Capacity Run", CAE Project No. 7955-3. A summary of the test results is listed in the table below. Also shown are the permitted rates, and the average and maximum expected rates at 162 TPH per previous testing (see AP-W77 Section 3).

	181 TPH	198 TPH	216 TPY (1 run only)	Permit	Average 162 TPH	Maximum 162 TPH
	PPH	PPH	PPH	PPH	PPH	PPH
Particulate	5.62	3.21	4.42	9.3		
NO_X	13.8	15.5	17	10.0		
CO	605	558	486		255	617
VOC	105	64.4	67.9		124	314
1,1,1 - Trichloroethane	3.21	BDL	BDL		2.30	3.26
1,3 Butadiene	8.68	5.25	5.93		4.10	25.06
2-Butanone	1.24	0.762	0.735		0.60	2.16
Acrylonitrile	BDL	BDL	BDL		0.23	1.23
Benzene	3.29	2.55	2.21		5.38	8.59
Ethyl Benzene	0.467	0.764	0.374		0.39	1.40
Hexane	1.57	0.85	0.927		1.65	5.59
Methylene Chloride	BDL	BDL	BDL		0.29	1.53
Styrene	0.842	1.04	0.381		0.97	3.38
Toluene	1.52	1.71	1.05		2.00	2.76
Trichloroethene	0.827	0.47	0.829		0.94	3.07
Xylene	1.27	2.06	0.64		2.58	6.30

Solvay Soda Ash Joint Venture, Inc.
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As you will note, particulate emission rates at all three production levels are within compliance of the permit limit, while NO_X rates are above the permit limit. CO and HAP emission rates are below the maximum expected emission rates at a production rate of 162 TPH, with some of them below the expected average emission rate. The VOC emission rate at all three production levels is below the average emission rate expected at the 162 TPH rate. Following these tests, I spoke with Bernie Dailey and Lee Gribovicz concerning the failed NO_X emission rates, and agreed to continue the capacity testing while tuning the burner and then retest for NO_X and particulate. During June, a North American Mtg. Co. representative was on site to assist Solvay instrument/electrical mechanics tuning the calciner burner. Clean Air Engineering retested for particulate and NO_X. The results are detailed in the enclosed report; "Report on Particulate and Gaseous Emissions Testing at 185 TPH", CAE Project No. 7982-1. A summary of the test results is listed below with permitted rates included for comparison.

	185 TPH test	Permit	Proposed Permit (AP-W77)
	PPH	PPH	PPH
Particulate	7.11	9.3	9.3
NO_X	10.08	10	15

The tested NO_X emission rate (10.08 PPH) is less than 1 percent above the existing permitted rate (10 PPH), and well below the proposed permit limit (15 PPH) as requested in permit application AP-W77.

During May 1997, Calciner #3 was operated at production rates above 162 TPH for 274 hours and during June for 496 hours (37 and 69 percent of the month, respectively).

A BACT analysis and an ambient impact for the pollutants required under PSD regulations have been addressed in AP-W77. This permit application is presently under review in your office and near completion. The emission rates of Calciner #3 at a production rate of 185 TPH are within compliance of permitted limits for particulate and below expected maximum rates of CO, VOCs, and HAPs. As mentioned above, the NO_X emission at 185 TPH is less than 1 percent above the existing permitted limit and below the AP-W77 proposed emission limit.

Solvay Soda Ash Joint Venture hereby requests an extension for operating Calciner #3 (AQD #48) at a higher maximum rate of 185 TPH. This extension will be terminated on December 31, 1997 or the date of the issuance of AP-W77, whichever is first.

If you have any questions concerning this request, please contact me at (307) 872-6571.

Sincerely,

Dolly A. Potter
Environmental Engineer

Enclosures

cc: Bernie Dailey
Lee Gribovicz with enclosures